

What is claimed is:

- 1 1. A flat-panel display comprising two glass plates enclosing at least one array of fibers,
2 which serves to form structure within said display, where one of said two glass
3 plates is larger than the other in all directions in a plane of said glass plates.
- 1 2. A flat-panel display according to claim 1, wherein said display is a plasma display panel
2 having a hermetically sealed gas filled enclosure containing at least one array of
3 fibers to form part of a plasma cell structure.
- 1 3. A flat-panel display according to claim 1, wherein said display is a plasma addressed
2 liquid crystal panel having at least one array of fibers to form a plasma cell
3 structure.
- 1 4. A flat-panel display according to claim 1, wherein said display is a field emission
2 display panel having a hermetically sealed vacuum enclosure containing at least
3 one array of fibers to form part of said structure in said display.
- 1 5. A flat-panel display according to claim 2, wherein said hermetically sealed gas filled
2 enclosure contains two orthogonal arrays of fibers that forms an entire plasma cell
3 structure.
- 1 6. A flat-panel display according to claim 5, wherein said hermetically sealed gas filled
2 enclosure contains:
3 two glass plates sandwiched around a top fiber array and a bottom fiber array, said
4 top and bottom fiber arrays being substantially orthogonal and defining a
5 structure of said display, said top fiber array disposed on a side facing
6 towards a viewer;
7 said top fiber array including identical top fibers having at least two ends, each top
8 fiber including two wire sustain electrodes located near a surface of said top
9 fiber on a side facing away from said viewer and a thin dielectric layer
10 separating said sustain electrodes from said surface, said surface being
11 covered by an emissive film;

12 said bottom fiber array including three alternating bottom fibers, each bottom fiber
13 having at least two ends and including a pair of barrier ribs that define a
14 plasma channel, at least one wire address electrode located near a surface of
15 said plasma channel, and a phosphor layer coating on said surface of said
16 plasma channel, wherein a luminescent color of said phosphor coating in
17 each of said three alternating bottom fibers represents a subpixel color of
18 said plasma display;

19 each subpixel being formed by a crossing of one top fiber and one corresponding
20 bottom fiber; and

21 said plasma display being hermetically sealed with a glass frit where said wire
22 electrodes are brought out through said glass frit.

- 1 7. A flat-panel display according to claim 6, wherein said glass frit covers said ends of said
2 top and bottom fibers to dielectrically isolate said wire electrodes.
- 1 8. A flat-panel display according to claim 5, wherein a glass frit is used to form a hermetic
2 seal and wire electrodes extend through a frit-seal region and are connected to a
3 circuit board containing high voltage drive electronics.
- 1 9. A flat-panel display according to claim 8, wherein said glass frit is forced to flow into a
2 gap between said two glass plates.
- 1 10. A flat-panel display according to claim 2, wherein a top glass plate is larger than a
2 bottom glass plate in all directions in a plane of said glass plates where said top
3 glass plate is disposed on a side facing towards a viewer.
- 1 11. A flat-panel display according to claim 10, wherein said display is hermetically sealed
2 with a glass frit that connects a surface of said top glass plate to an edge of an
3 entire perimeter of said bottom glass plate.
- 1 12. A flat-panel display that has a vacuum tube attachment where a glass frit to seal a
2 vacuum tube to said panel is forced to flow into a tube panel junction using a glass

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3 washer over said vacuum tube.

1 13. A curved-panel display comprising two glass plates enclosing two orthogonal fiber
2 arrays, which serves to form a structure within said display.

1 14. A curved-panel display according to claim 13, wherein one of said two glass plates is
2 larger than the other in all directions in a plane of said glass plates.

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